

Comparisons of Job Characteristics

Focus Occupation: [Architectural and Engineering Managers \(11-9041\)](#)

Associated Occupation: [Engineers, All Other \(17-2199\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 93

Focus Occupation: Architectural and Engineering Managers (11-9041)

Associated Occupation: Engineers, All Other (17-2199)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Engineering and Technology	5.7	20.1	23.2	> Current knowledge level is likely sufficient
Mathematics	9.2	17.1	17.4	0 Current knowledge level may be sufficient
Design	5.2	16.5	19.0	> Current knowledge level is likely sufficient
Computers and Electronics	8.4	15.0	16.9	> Current knowledge level is likely sufficient
Physics	4.3	14.8	13.0	< Expanded education and/or training may be required
Mechanical	6.8	14.0	10.4	<< Extensive education and/or training may be required
Production and Processing	6.0	12.9	10.7	< Expanded education and/or training may be required
Building and Construction	4.0	6.6	10.7	>> Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 72

Focus Occupation: Architectural and Engineering Managers (11-9041)

Associated Occupation: Engineers, All Other (17-2199)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mathematics	6.2	12.8	11.7	0 Current skill level may be sufficient
Systems Analysis	6.5	11.7	10.7	0 Current skill level may be sufficient
Science	4.5	11.4	8.7	<< Extensive development of skills in this area may be required
Systems Evaluation	6.4	11.1	10.7	0 Current skill level may be sufficient
Operations Analysis	5.0	10.8	13.9	>> Skill level is likely more than sufficient

Technology Design	2.6	7.9	3.3	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	6.3	1.0	<<	Extensive development of skills in this area may be required
Programming	2.2	5.3	2.1	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 97			
Focus Occupation: Architectural and Engineering Managers (11-9041) Associated Occupation: Engineers, All Other (17-2199)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	15.1	15.2	0	Current ability level may be sufficient
Deductive Reasoning	10.6	15.0	13.9	0	Current ability level may be sufficient
Inductive Reasoning	10.2	13.7	12.5	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	13.4	13.3	0	Current ability level may be sufficient
Information Ordering	9.9	13.2	12.0	0	Current ability level may be sufficient
Category Flexibility	9.0	12.3	11.4	0	Current ability level may be sufficient
Originality	7.6	11.8	10.5	<	Some improvement in abilities may be required
Visualization	7.5	11.7	10.1	<	Some improvement in abilities may be required
Number Facility	6.3	11.6	11.2	0	Current ability level may be sufficient
Fluency of Ideas	7.6	11.4	10.1	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 84
Focus Occupation: Architectural and Engineering Managers (11-9041) Associated Occupation: Engineers, All Other (17-2199)		
Tools and Technologies	Exclusivity	
Autoclave and sterilizer equipment and accessories	12	
Business function specific software	1	
Chromatographic measuring instruments and accessories	16	
Computer data input devices	2	
Computers	1	
Content authoring and editing software	1	
Content management software	6	

Data management and query software	1
Electrochemical measuring instruments and accessories	9
Fermentation equipment	31
Finance accounting and enterprise resource planning ERP software	2
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory decanting and distilling and evaporating and extracting equipment and supplies	19
Laboratory electrophoresis and blotting system and supplies	26
Laboratory enclosures and accessories	17
Laboratory heating and drying equipment	13
Laboratory incubating equipment	20
Network applications software	1
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.